Exercícios propostos

1 Determine o domínio D da função definida por:

a) $f(x) = \frac{x}{x-5}$ $\{x \in \mathbb{R} \mid x \neq 5\}$

b) $f(x) = \frac{x+2}{2x}$ $\{x \in \mathbb{R} \mid x \neq 0\}$

c) $f(x) = \frac{x}{x^2-4}$ $\{x \in \mathbb{R} \mid x \neq -2 \text{ e } x \neq 2\}$

d) $f(x) = \frac{x}{2x-1}$ $\left\{x \in \mathbb{R} \mid x \neq \frac{1}{2}\right\}$

e) $f(x) = \frac{1}{x^2-9x+20}$ $\{x \in \mathbb{R} \mid x \neq 4 \text{ e } x \neq 5\}$

f) $f(x) = \frac{1}{x} + \frac{x}{x+3}$ $\{x \in \mathbb{R} \mid x \neq -3 \text{ e } x \neq 0\}$

g) $f(x) = \frac{x+1}{x-1} + \frac{1}{x^2-9}$ $\{x \in \mathbb{R} \mid x \neq -3,\ x \neq 1 \text{ e } x \neq 3\}$

h) $f(x) = \sqrt{2x-1}$ $\left\{x \in \mathbb{R} \mid x \geq \frac{1}{2}\right\}$

i) $f(x) = \frac{x-1}{\sqrt{x-2}}$ $\{x \in \mathbb{R} \mid x > 2\}$

j) $f(x) = \frac{x^2-1}{3x} + \frac{1}{\sqrt{x+5}}$ $\{x \in \mathbb{R}^* \mid x > -5\}$

2 Ache o campo de existência (domínio) da função $f(x) = \frac{\sqrt{x-1}}{x^3} + \frac{2x}{\sqrt{x+4}}$. $\{x \in \mathbb{R} \mid x \geq 1\}$

3 Qual o domínio da função $f(x) = \sqrt[3]{4x+1}$? $\mathbb{R}$